

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A pixel cell in an active matrix display comprising:
 - a current driven emissive element,
 - a data input for receiving an analog data signal (V_{in}),
 - at least two drive elements, each being connected to a power supply and arranged to drive the emissive element in accordance with said analog data signal (V_{in}),
 - selecting means for selecting one or more of the at least two drive elements in response to one or more select signals, and for providing said data signal (V_{in}) to the selected one or more drive elements,
 - wherein each drive element is adapted to drive the emissive element in a different drive current range in response to a given

voltage of the analog data signal (V_{in}),

wherein when the analog data signal having a first voltage is provided to a first one of the drive elements for a duration of time and said first drive element is selected to drive the emissive element, a brightness of the emissive element is greater than when the analog data signal having the first voltage is provided to a second one of the drive elements for the duration of time and said second drive element is selected to drive the emissive element, and

wherein the analog data signal has a desired voltage range to provide a desired brightness range, and wherein a separation between a lower value of the desired voltage range and threshold voltages of the at least two drive elements is increased by mapping the desired voltage range onto a smaller voltage range for providing the desired brightness range.

2. (Previously Presented) A pixel cell according to claim 1, wherein said selecting means comprises at least two switches, each arranged to be provided with a separate one of the select signals, said select signals determining the drive current range resulting from a given data signal (V_{in}).

3. (Previously Presented) A pixel cell according to claim 2, wherein, during a frame period (T_F), each switch is arranged to receive a select signal which is set either ON or OFF and in response thereto, when the select signal is ON the switch causes a corresponding one of the drive elements to drive the emissive element, and when the select signal is OFF, the switch causes the corresponding drive element to not drive the emissive element.

4. (Previously Presented) A pixel cell according to claim 2, wherein during a frame period (T_F), each switch is arranged to receive a select signal which is alternatively ON and OFF, and wherein said data signal (V_{in}) is enabled only during a portion of the frame period, and wherein when the select signal is ON the switch causes a corresponding one of the drive elements to drive the emissive element, and when the select signal is OFF, the switch causes the corresponding drive element to not drive the emissive element.

5. (Previously Presented) A pixel cell according to claim 1,

where the drive elements comprise transistors having different transistor channel dimensions.

6. (Previously Presented) A pixel cell according to claim 1, where the current driven emissive element is an organic LED (OLED).

7. (Currently Amended) A display device, comprising:
a plurality of pixel cells, each pixel cell comprising,
comprising:

a current driven emissive element,
a data input for receiving an analog data signal (V_{in}),
at least two drive elements, each being connected to a power supply and arranged to drive the emissive element in accordance with said analog data signal (V_{in}),

selecting means for selecting one or more of the at least two drive elements in response to one or more select signals, and for providing said data signal (V_{in}) to the selected one or more drive elements,

wherein each drive element is adapted to drive the emissive element in a different drive current range in response to

a given voltage of the analog data signal (V_{in}); and

a controller, arranged to receive an analog video signal belonging to a first voltage range, to generate the analog data signal (V_{in}) belonging to a second, more narrow voltage range, and to associate said analog data signal (V_{in}) with a select signal indicating a desired drive current range; and

means for providing said analog data signal (V_{in}) and said select signal to one of said pixel cells;

wherein when the analog data signal having a first voltage is provided to a first one of the drive elements for a duration of time and said first drive element is selected to drive the emissive element, a brightness of the emissive element is greater than when the analog data signal having the first voltage is provided to a second one of the drive elements for the duration of time and said second drive element is selected to drive the emissive element, and

wherein the analog data signal has a desired voltage range to provide a desired brightness range, and wherein a separation between a lower value of the desired voltage range and threshold voltages of the at least two drive elements is increased by mapping the desired voltage range onto a smaller voltage range for

providing the desired brightness range.

8. (Previously Presented) A display device according to claim 7, wherein said first voltage range comprises voltages which are closer to threshold voltages of the pixel cell drive elements than any voltages in said second voltage range.

9. (Currently Amended) A method for driving a pixel cell comprising an emissive element and at least two drive elements for driving the emissive element, each drive element being adapted to drive the emissive element in a different drive current range in response to a given data signal (V_{in}) said method comprising:

based on an analog video signal belonging to a first voltage range, generating an analog data signal (V_{in}) belonging to a second, more narrow voltage range, and

associating said analog data signal with one or more select signals indicating a desired drive current range, and, in response to the one or more select signals, providing said analog data signal (V_{in}) to a selected one or more of the drive elements in the pixel cell to drive the emissive element in the desired drive

current range,

wherein when the analog data signal having a first voltage is provided to a first one of the drive elements for a duration of time and said first drive element is selected to drive the emissive element, a brightness of the emissive element is greater than when the analog data signal having the first voltage is provided to a second one of the drive elements for the duration of time and said second drive element is selected to drive the emissive element, and

wherein the analog data signal has a desired voltage range to provide a desired brightness range, and wherein a separation between a lower value of the desired voltage range and threshold voltages of the at least two drive elements is increased by mapping the desired voltage range onto a smaller voltage range for providing the desired brightness range.

10. (Previously Presented) A method according to claim 9, wherein said first voltage range comprises voltages which are closer to threshold voltages of the pixel cell drive elements than any voltages in said second voltage range.

11. (Previously Presented) A method according to claim 9, wherein said one or more select signals comprise at least two select signals, each connected to a separate switch.

12. (Previously Presented) A method according to claim 9, wherein, during a frame period (T_F), each select signal is set either ON or OFF.

13. (Previously Presented) A method according to claim 9, wherein, during a frame period (T_F), each select signal only is set ON during a portion of the frame period, and said data signal (V_{in}) only is enabled during a portion of the frame period.

14. (Previously Presented) The pixel cell of claim 1, wherein each drive element is directly connected to the power supply.

Claim 15 (Canceled)

16. (Previously Presented) The pixel cell of claim 1, wherein when the one or more select signals have a first state, the

selecting means selects only a first one of the drive elements to drive the emissive element, and when the one or more select signals have a second state, the selecting means selects only a second one of the drive elements to drive the emissive element.

17. (Previously Presented) The display device of claim 7, wherein each drive element is directly connected to the power supply.

Claim 18 (Canceled)

19. (Previously Presented) The display device of claim 7, wherein when the one or more select signals have a first state, the selecting means selects only a first one of the drive elements to drive the emissive element, and when the one or more select signals have a second state, the selecting means selects only a second one of the drive elements to drive the emissive element.

Claims 20-22 (Canceled)

23.(Currently Amended) The pixel cell of claim 1, wherein the two drive elements generate different drive current ranges for a same data signal range.